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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,399	03/16/2001	Howard B. Goldman		3582

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William J. Crossetta, Jr.
Crossetta & Associates
905 Convention Towers
43 Court Street
Buffalo, NY 14202

EXAMINER

NGUYEN, THU V

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/809,399

Applicant(s)

GOLDMAN, HOWARD B.

Examiner

Thu Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

The amendment filed on August 15, 2003 has been entered. By this amendment, claim 13 has been amended, all claims 1-26 are now pending in the application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aisenbrey in view of the applicant's admitted prior art (AAPA hereinafter) (specification page 9, lines 5-24; page 10, lines 1-22).

As per claim 13, AAPA teaches a well known antenna including an antenna having stacked ground and positive plates arranged to enable receipt of electromagnetic signals (page 9, lines 5-24). AAPA does not teach engaging a positive plate with a polymeric composition containing a random disassociated suspension of conductive metal particles. However, Aisenbrey teaches including a conductive plate of polymeric composition containing a random disassociated suspension of conductive metal particles (para 0016, 0045, 0036-0038) to an

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electromagnetic signal receiving GPS antenna assembly (para 0045). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a polymeric composition of conductive metal particles to the conventional antenna of the AAPA in order to facilitate embedding the antenna to a specific plastic housing of a vehicle as taught by Aisenbrey in paragraph [0051]-[0052].

As per claim 14, since Aisenbrey teaches that the composite of polymeric with metal particles enhances the capability of electromagnetic signal conduction (para 0016), and a device formed of the composite material would conduct electromagnetic signals regardless of its shape (para 0038), it would have been obvious to a person of ordinary skill in the art at the time the invention was made to shape the plate or the substrate of the composite polymeric and metal materials of Aisenbrey to an encase of the antenna of the AAPA, since shaping the electromagnetic conductive structure of Aisenbrey in an encased shape as preferred by the designer requires only routine skill in the art.

As per claims 15-17, the claimed internal structure of a GPS antenna would have been known.

As per claim 18-20, 25, Aisenbrey does not explicitly teach selecting a specific material for the polymeric and conductive metal as claimed. However, Aisenbrey suggests that certain

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composite materials should be carefully selected to obtain a specific characteristic of the antenna (para 0038); further, a metal composed of magnesium carbonate, and a non-conductive material including an epoxy, etc would have been known conductive/non-conductive materials. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to select the magnesium carbonate, since selecting a specific known material for a conductive metal device according to a particular need requires only routine skill in the art.

As per claim 21-24, and 26, applicant's admitted prior art in view of Aisenbrey do not explicitly disclose an exterior surface as claimed. However, selecting a specific outer surface to facilitate mounting an antenna to a selected position requires only routine skill in the art.

3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herring (US 6,211,823) in view of AAPA and further in view of in view of Aisenbrey (US 2002/0109634).

As per claim 1, Herring suggests implementing an antenna underside of the vehicle (col.3, lines 41-49; col.4, lines 19-31). Herring does not explicitly teach the wireless communication means, the GPS signal processor, and a GPS antenna having the polymeric composite of conductive materials as claimed. However, including the wireless communication means, the GPS signal processor for processing the GPS signal received from the GPS antenna would have been well known. Further, refer to claim 13 above for the discussion of the GPS antenna. It would have been obvious to a person of ordinary skill in the art at the time the

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invention was made to include the well known wireless communication means, the GPS signal processor to the device of Herring and to replace the antenna of Herring with the antenna composed of the polymeric composite of conductive materials of Aisenbrey in order to enhance electromagnetic signal conductivity of the antenna of Herring.

As per claim 2-5, 10-12, conducting the communication between the GPS antenna and satellites when needed, and tracking the position of a vehicle through connection with the Internet would have been well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to conduct a known wireless communication with the satellites only when position data is needed to save power consumption.

As per claim 6-9, refer to claim 1 above. Further, using a magnet as a means for attaching the antenna to the vehicle would have been obvious, since selecting a known attaching means to attach a device to a metal surface requires only routine skill in the art.

Response to Arguments

- a. The indication of the allowable claims has been withdrawn in view of the newly prior arts of Aisenbrey (US 2002/0109634).
- b. Remarks: since Aisenbrey teaches molding a composites of resin based materials including polymeric materials and conductive powders (para 0038), Aisenbrey obviously

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teaches dispersing the metal throughout the polymeric medium in the concept explained by the applicant in page 10, second and third paragraphs.

- c. Applicant's arguments on page 11-13 are moots in view of the new ground of rejection.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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or faxed to:

(703) 305-7687, (for formal communications intended for entry)

Or:

(703) 305-7687 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park V, 2451 Crystal Drive, Arlington, VA., Seventh Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The examiner can normally be reached on Monday-Thursday from 8:00 am to 6:00 pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski, can be reached on (703) 308-3873. The fax phone number for this Group is (703)305-7687 .

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)308-1111.

A handwritten signature in cursive script, appearing to read "Thu Nguyen", with a horizontal line underneath the name.

Thu Nguyen

September 17, 2003